

IN THE ABSTRACT

Please add the following ABSTRACT to the case.

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An ozone-based water purification system is disclosed. In this system, a mixing venturi injects ozone and a liquid sanitizer into a stream of water to be treated. Following ozone and sanitizer injection, the stream of water is passed to a contact region where the ozone and sanitizer are allowed to react with contaminants and biota. The stream is then mixed by several mixing devices to allow residual ozone and sanitizer to further react with contaminants and biota. Particularly a counterflow system is employed wherein the stream is directed downward at several points so that bubbles containing ozone are forced to flow upward against the flow, lengthening ozone contact time. Also, the ultraviolet lamp used to generate ozone is mounted so that ultraviolet light therefrom is exposed to the flow water, providing additional sterilizing effects. In addition, a novel mixing venturi is disclosed that mixes a gas containing ozone and a liquid sanitizer into a motive flow of water